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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,507	03/20/2001	Peter Moore	2653-001	1807

7590 02/08/2005

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EXAMINER
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COSIMANO, EDWARD R

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/812,507

Applicant(s)

MOORE, PETER

Examiner

Edward R. Cosimano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/5/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Applicant should note the changes to patent practice and procedure:
  - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
  - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
  - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. Applicant's claim for the benefit of an earlier filing data under 35 U.S.C. § 119(e) is acknowledged.
3. The drawings are objected to because
  - A) the drawings must show every feature of the invention specified in the claims, therefore, the subject matter of:
    - (1) claims 11, 12, 34, 35, 51, 52, 63 & 64, in regard to how it would be determined that there are sufficient "resultant costs and effects" to create the recited "Negotiated Service Agreement" (claims 11, 34, 51 & 63) or the recited "Niche Classification agreement" (claims 12, 35, 52 & 64), since the invention as described in the disclosure and the drawings or as recited in the claims fails to set forth what these agreements are and at least the minimum requirements for a mailer to enter into one of these agreements.must be shown in the drawings as required by 37 CFR § 1.83(a) or the feature(s) canceled from the claim(s) (note: no new matter should be entered).
- 3.1 Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary

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to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The disclosure is objected to because of the following informalities:

A) the subject matter of:

(1) claims 11, 12, 34, 35, 51, 52, 63 & 64, in regard to how it would be determined that there are sufficient "resultant costs and effects" to create the recited "Negotiated Service Agreement" (claims 11, 34, 51 & 63) or the recited "Niche Classification agreement" (claims 12, 35, 52 & 64), since the invention as described in the disclosure and the drawings or as recited in the claims fails to set forth what these agreements are and at least the minimum requirements for a mailer to enter into one of these agreements.

lacks antecedent basis within the specification as required by 37 CFR § 1.75(d1).

Appropriate correction is required.

5. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.52, 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

6. Claims 1-70 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6.1 In regard to claims 1-70, although one of ordinary skill at the time of the invention would know how to accomplish each of the individual recited actions/functions from the language of these claims, since, there is no clear and definite interconnection between one or more of the recited limitations of these claims, one of ordinary skill could not determine from the language of these claims whether or not they are in fact making and/or using the claimed

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invention. In this regard it is noted that from the language of these claims it is vague, indefinite and unclear:

A) in regard to claims 1, 24, 47 & 59, and how the “resultant effects” may be calculated or determined and ultimately presented, since the invention as recited in these claims fails to set forth a basis or reference point for which the “resultant effects” of a mailing presort may be determined.

B) in regard to claims 1, 22-24, 45-48 & 59, and for which analysis of the option sets and the data base of mailing data are the “resultant costs and effects” either stored and/or presented and or exported, since the invention as recited in these claims indicates that there are multiple option sets for which the “analysis” would produce corresponding “resultant costs and effects”, hence the analysis would produce multiple “resultant costs and effects”.

C) in regard to claim 5, 50 & 62, and how the logic could either:

(1) compute “an optimum presort strategy for the identified packages, since the invention as recited in these claims fails to recite any “packages” so that a “package” may be identified and an “optimum presort strategy” may be identified; or

(2) calculate “a figure of merit for the analysis for each option set”, since the invention as recited in these claims fails to recite any “packages” so that a “figure of merit for a presort strategy” may be determined.

D) in regard to claims 9 & 32, and how the logic could calculate “an average delivery factor for” the mailing, since the invention as recited in these claims fails to recite or set forth any factor that would permit the invention to determined “an average delivery factor”.

E) in regard to claims 10 & 33, and the logic can present the “results of the analysis for each option set such that the cost and effects” can be compared, since the invention as recited in the base claims indicates that there is only one “resultant costs and effects” that is stored and/or displayed, and hence there are no other “resultant costs and effects” that may be presented for comparison or compared to one another.

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F) in regard to claims 11, 12, 34, 35, 51, 52, 63 & 64, and how it would be determined that there are sufficient “resultant costs and effects” to create the recited “Negotiated Service Agreement” (claims 11, 34, 51 & 63) or the recited “Niche Classification agreement” (claims 12, 35, 52 & 64), since the invention as recited in these claims fails to recite or set forth what these agreements are and at least the minimum requirements for a mailer to enter into one of these agreements.

G) in regard to claims 18, 41, 55 & 67 and how a “actual value parameter” may be substituted for an “estimated value parameter”, since the invention as recited in these claims fails to recite any “parameters” whether the “parameters” are “estimated” or “actual” or “omitted”.

6.2 Claim 5 lacks antecedent basis in claim 3 since claims 1 and 3 fail to recite packages.

6.3 The subject matter of:

A) claims 11, 12, 34, 35, 51, 52, 63 & 64, in regard to how it would be determined that there are sufficient “resultant costs and effects” to create the recited “Negotiated Service Agreement” (claims 11, 34, 51 & 63) or the recited “Niche Classification agreement” (claims 12, 35, 52 & 64), since the invention as described in the disclosure and the drawings or as recited in the claims fails to set forth what these agreements are and at least the minimum requirements for a mailer to enter into one of these agreements.

lacks antecedent basis within the specification as required by 37 CFR § 1.75(d1).

6.4 Claims 18-21, 41-44, 55-58 & 67-70 lacks antecedent basis for the word “parameter”, since respective base claims fails to recite any “parameters” whether the “parameters” are “estimated” or “actual” or “omitted”.

6.5 Claims not specifically mentioned above, inherit the defects of the base claim through dependency. For the above reason(s), applicant has failed to particularly point out what is regarded as the invention.

7. 35 U.S.C. § 101 reads as follows:

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"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

7.1 Claims 1-70 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.1.1 The instant claims recite a system, (claims 1-23 & 47-58), and a method comprising a series of steps to be performed, (claims 24-48 & 59-70), which have a disclosed practical application in the technological or useful arts. Further, the instant claims do not merely define either a computer program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon.

7.1.2 In regard to claims 1-70, the invention as set forth in these claims merely describes:

A) a system and method of entering data, implying that the entered data is iterative manipulated and then either store and/or displaying the results of one iteration.

However, the process/system as recited in these claims does not require the result of either the claim as a whole or the manipulations of data as recited in these claims be applied in any manner so as to be tangibly used in a concrete manner and hence to produce a useful concrete and tangible result, that is a concrete and tangible application with in the technological or useful arts.

7.1.3 It is further noted that applicant has not recited in these claims a specific process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, which is either:

A) altered or changed or modified by the invention recited in claims; or

B) utilizes the result of the invention recited in these claims; or

C) is operated or controlled by the result of the invention recited in these claims.

7.1.4 It is further noted in regard to claims 1-70, that as claimed applicant has not claimed:

A) pre computer processing, since the claims fail to recited that the data, which originates from an unknown source, is manipulated or transformed/changed before it is processed; or

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B) post computer processing, since the claims fail to recited that the data which represents the result of the claimed manipulation, is neither manipulated nor used nor changed by any device after it has been processed; or

C) a practical use of the claimed invention by any physical system or device or method outside of a statement of the intended use of the claimed invention; or

D) process steps or physical acts/operations that would affect the internal operation of a computer/machine as were found to be statutory in either In re McIlroy 170 USPQ 31 (CCPA, 1971) or In re Waldbaum 173 USPQ 430 (CCPA, 1972); or

E) process steps or physical acts/operations that would be considered as going beyond the manipulation of “abstract ideas” as were found to be non-statutory in In re Warmerdam 31 USPQ2d 1754 (CAFC, 1994); or

F) a concrete and tangible practical application of either:

(1) the invention as a whole; or

(2) the final results of the manipulations/actions with in the technological or useful arts;

note In re Sarkar 200 USPQ 132 (CCPA, 1978) where the process step of “constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model” was held to be so tenuous connected to the remaining process steps as to not be a process with in the scope of 35 U.S.C. § 101.

Hence, the invention of claims 1-70 is merely directed to an hypothetical mental exercise that manipulates an abstract idea of a system and method manipulated entered data/information with out applying the result of the manipulation and hence is with out a claimed concrete and tangible practical application of the abstract idea, (note In re Beauregard 35 USPQ2d 1383 (CAFC 1995) and the associated claims of U.S. Patent 5,710,578; and State Street Bank & Trust Co. v. Signature Financial Group Inc. 47 USPQ2d 1596 (CAFC 1998)).

7.1.5 It is further noted that the type/nature of either the data or the calculated numbers does not affect the operation of the claimed invention and hence are considered to be non function descriptive material, (note In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983)).



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7.1.6 In practical terms, claims define nonstatutory processes if they:

A) consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or

B) simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759),

without some claimed practical application of the mathematics or abstract idea.

7.1.7 In view of the above analysis claims 1-70, as a whole, are directed to an hypothetical mental exercise that merely manipulates mathematics or an abstract idea without a claimed concrete and tangible practical application of the mathematics or abstract idea, and hence are directed to non-statutory subject matter.

7.2 Claims 1-70 are rejected under 35 U.S.C. § 101 because the invention as claimed is

7.2.1 As set forth by the Court in:

A) In re Musgrave 167 USPQ 280 at 289-290 (CCPA 1970), “We cannot agree with the Board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all of the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the process to think. All that is necessary, in our view, to make a sequence of operational steps a statutory “process” within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of “useful arts.” Cons. Art. 1, sec. 8.”, {emphasis added}; and

B) In re Sarkar 100 USPQ 132 @ 136-137 (CCPA 1978), echoing the Board of Appeals stated in regard to claim 14 “14. A method of locating an obstruction in an open channel to affect flow in a predetermined manner comprising:

a) obtaining the dimensions of said obstruction which affect the parameters of flow;

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b) constructing a mathematical model of at least that portion of the open channel in which said obstruction is to be located in accordance with the method of claim 1 using those dimensions obtained in step (a) above;

c) adjusting the location of said obstruction within said mathematical model until the desired effect upon flow is obtained in said model; and thereafter

d) constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model.”;

and “Concerning claims 14-39 and the significance of "post-solution activity," like building a bridge or dam, the board concluded: While it is true that the final step in each of these claims makes reference to the mathematical result achieved by performing the prior recited steps, we consider the connection to be so tenuous that the several steps recited in each claim when considered as a whole do not constitute a proper method under the statute.”, {emphasis added}.

7.2.2 Further, it is noted in regard to claims 14-39 of Sarkar, although step (d) of claim 14 of Sarkar references the result of step (c) of claim 14 of Sarkar it is clear from the language of step (c) of claim 14 of Sarkar that multiple adjustments to the location of the obstruction are required to be made until a location with the desired effect has been determined. Hence, the reference to constructing the obstruction at the “specified adjusted location” in step (d) of claim 14 of Sarkar is vague, indefinite and unclear in regard to which one of the possible multiple adjusted locations of the obstruction that were used during step (c) of claim 14 of Sarkar would be used when constructing the obstruction as required by step (d) of Sarkar. Therefore, without a clear connection between step (d) of Sarkar and the remaining steps of claim 14 of Sarkar, the Board of Appeals and the Court held that these claims were not a process within the meaning of process as used in 35 U.S.C. § 101 and hence were directed to non statutory subject matter.

7.2.3 As can be seen from claims 1-70, these claims are directed to a series of devices for performing various functions or steps/actions/functions, which as set forth above in regard to

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the rejection of claims 1-70 under 35 U.S.C. § 112 2<sup>nd</sup> paragraph, are not clearly and definitely interconnected to one another and therefore do not provide an operative useful machine/system or method/process with in the meaning of machine or process as used in 35 U.S.C. § 101.

7.3 Claims 1-70 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since:

A) in regard to claims 1-70, these claims fail to comply with the “requirements this title, namely 35 U.S.C. § 112 2<sup>nd</sup> paragraph as set forth above.

B) in regard to claims 1-70, these claims fail to comply with the “requirements this title, namely 35 U.S.C. § 103 as set forth below.

8. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

8.1 Claims 1-70 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Hollingsworth (4,589,555) or Pettner (6,135,292) or Wells et al (2001/0032881).

8.1.1 In regard to claims 1-4, 5-9, 13-26, 29-33, 36-49, 54, 61 & 65-70, either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) disclose a computer implemented systems and methods that process mail for delivery to the post office. It is further noted that either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) teach that volume mailers may obtain the maximum postage discount by preparing mailings by creating batches of mail

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that will meet the requirements of the post office for receiving one or more discounted mailing rates. Where the discounted mailing rates apply to batches of mail that meet size/volume/number requirements and are barcoded and/or are sorted to various levels of the zipcode and/or are sorted in the carrier's delivery sequence and/or are properly bundled/trayed. Since:

A) it would not be an easy task for someone to manually prepare the batches of mail that make up a mailing that would meet the discount requirement of the post office; and

B) the postage for the large mailings of a volume mailer would add up to a very large expense over time;

it would have been obvious to one of ordinary skill at the time of the invention that the systems of either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) would have used a properly programmed computer/logic, which under the control of instructions stored in a memory, would have prepared a mailing for production by importing/obtaining a mailing list of batches of individual items of mail, sorting the obtained mailing list into the proper sequence and then comparing the sorted mailing list to the requirements of the post office for obtaining the various levels of discounted postage rates so that the mailing of the mailer may be delivered at the lowest possible cost to the mailer so that the mailer would thereby save money.

8.1.2 In regard to the optimum sorting of claims 5, 10, 27, 28, 50 & 62, since the systems of either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) find the maximum discounted postage rate for the mailing, it would have been obvious to one of ordinary skill at the time of the invention that the systems of either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) would search each of the various discount levels and combination of discounts in order to obtain the maximum level of discounted postage available to the mailer for the mailing.

8.1.3 In regard to the agreements of claims 11, 12, 34, 35, 51, 52, 63 & 64, since these agreements would trend to reduce the cost associated with mailings to the mailer, it would have been obvious to one of ordinary skill at the time of the invention that the systems of either Hollingsworth ('555) or Pettner ('292) or Wells et al ('881) would enter into search each of the

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various discount levels and combination of discounts in order to obtain the maximum level of discounted postage available to the mailer for the mailing.

9. The examiner has cited prior art of interest, for example:

A) Wakamiya (JP 01-145764) which discloses the sorting of mail by zipcode sequece.

10. The shorten statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

11.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

11.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

02/05/05

  
Edward R. Cosimano  
Primary Examiner A.U. 3629

US-PAT-NO: 4589555

DOCUMENT-IDENTIFIER: US 4589555 A

TITLE: Mail sorting apparatus and method

DATE-ISSUED: May 20, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hollingsworth; James A.	Denver	CO	80237	N/A

US-CL-CURRENT: 209/703, 209/900

ABSTRACT: A mail sorting system employing a modified mail conveyor in combination with a sorting table where articles of mail moving linearly in the direction of their longest dimension are deposited in a shingled pattern onto an angled sorting table surface provided with a conveyor so that the articles of mail are conveyed in the direction of their shortest dimension and in partial overlapping relationship.

4 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

----- KWIC -----

Brief Summary Text - BSTX (6): A common practice for large mailers to accomplish the required sorting and preparation, at the lowest cost, is to utilize data processing methods to address their mail in numerical zip code sequence.

US-PAT-NO: 6135292

DOCUMENT-IDENTIFIER: US 6135292 A

TITLE: Method and system for presorting mail based on mail piece thickness

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pettner; Gabriel E.	Orange	CT	N/A	N/A

US-CL-CURRENT: 209/603, 209/900 , 271/263 , 700/223

**ABSTRACT:** The present invention relates to a method and system for accurately measuring mail piece thickness for the purpose of determining postage discount qualification of a mail piece to be placed in a mail tray for receiving the maximum postage discount. The system includes a device for measuring the thickness of said mail piece and a user interface for entering data representing at least one postal address and the measured mail piece thickness. The system further includes a data processing system for processing the mail piece in accordance with the set of address data and the mail piece thickness, to produce a set of mail piece data. The data processing system is coupled to the thickness measuring device and the user interface and includes a memory for storing the sets of data. The system further sorts the sets of mail piece database upon postal guidelines such that qualification of a mail piece can be determined. Output is provided for displaying the resulting mail piece identifier.

25 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

----- KWIC -----

Brief Summary Text - BSTX (9): In order for the user to gain the benefit of the work sharing process and qualify for postal discounts without significantly increasing their workload, postal mail processing programs have been created. Postal discounts are provided for example, for sorting mail based on the address information such as the mail piece zip code and the like.

PGPUB-DOCUMENT-NUMBER: 20010032881

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010032881 A1

TITLE: In-line verification, reporting and tracking apparatus and method for mail pieces

PUBLICATION-DATE: October 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wells, Thomas R.	Crystal Lake	IL	US	
Wojdyla, Richard	Wadsworth	IL	US	

US-CL-CURRENT: 235/385

**ABSTRACT:** An apparatus for automatically acquiring and verifying, relative to pre-established rules, address information and postage value indicia on a face of each of a plurality of mail pieces. The mail pieces can be subsequently placed in a tray and a label is applied to the tray, the label imprinted with information which relates to the mail piece content of the tray. The apparatus includes an inserter adapted to insert documents into an envelope and seal the envelope to produce a finished mail piece or a sorter which conveys finished mail pieces, with the address information and postage value indicia visible on a face of each mail piece. An in-line module is disposed adjacent the inserter, the module including a path along which each finished mail piece is transported. The module includes a scale and an image capture device, the scale adapted to measure and record the weight or mass of each finished mail piece, and the image capture device adapted to capture an image of the address information on the face of each finished mail piece. A scanning device can be provided to acquire a representation of the information on the tray label. The scale, image capture device and, optionally, scanning device are electronically linked to a control processor device for controlling acquisition, storage and verification of the address information and postage value indicia on the finished mail piece and the information on the label. An image processing device is provided in communication with the control processor device, and is adapted to synchronize acquisition, storage and verification of the address information, postage value indicia and label information.

----- KWIC -----

Summary of Invention Paragraph - BSTX (3): [0003] A large volume of mail today is produced and/or prepared for distribution and delivery to a customer delivery point by mass producers or mailers, such as banks, credit card management companies, billing departments of retail establishments and mass mailing advertisers, to name a few. Postage discounts are given by the Postal Service to large mailers, who in turn are required pursuant to established rules, to properly address and barcode each mail piece, sort and tray the mail pieces in sequence according to ZIP code, and label each tray as to destination, postage paid, weight, and other information. At present, the U.S. Postal Service has approximately 4,000 employees engaged in the manual verification of mail at 3,500 Business Mail Entry Units (BMEU's) located in postal facilities, and 800 Detached Mail Units located at various mailers' facilities who produce large volume



mailings. These employees, or acceptance clerks, manually verify mailings for piece counts, present makeup, barcode quality and proper postage, to ensure the mailer is entitled to the postage discount it claims. Failure to follow these procedures can result in major revenue losses to the Postal Service, and these manual verification procedures are time consuming, costly, and lead to error. As a result, there is a need to automate the manual verification process utilized by the Postal Service, and by large mailers, and to account for every mail piece produced on a host mail production machine, such as an inserter.

Summary of Invention Paragraph - BSTX (13): [0012] The above and other objects are provided by the present invention, which in one embodiment comprises a mail piece weighing and image capture module disposed in the transport stream of mail pieces, which mail pieces are completed by known inserting apparatus, or similarly known devices, with address information and postage value indicia visible on a face of each mail piece. The weighing and image capture module of the present invention is disposed at or near the point of completion of each mail piece, such that each mail piece traverses the module before being placed in standard or modified mail trays for shipment to a prescribed destination for processing and ultimate delivery to a mail consumer. As each mail piece traverses the weighing and image capture module, the weight of the mail piece is measured and recorded electronically in the database maintained at the mailer's facility. The image capture device then electronically captures an image of all address information and postage value indicia appearing on the face of each mail piece. This image is digitized and stored in the database as a digital image. According to Postal Service rules and regulations, each mail piece to qualify for a bulk rate discount must display address information and postage value indicia in certain pre-defined areas or sectors of each mailpiece. The computer program operating the mail piece processing system can discern and identify alpha-numeric address information, postage value indicia, barcodes, sort level codes and other data appearing on each mail piece. Non-conforming mail pieces may be rejected and either re-processed or not given postage discounts.

Detail Description Paragraph - DETX (3): [0024] The individual stacks of documents 18 and inserts from stations 22 are advanced by insertion conveyor 20 in the direction shown by arrow B until they reach envelope station 24, where each stack of documents is automatically inserted in a mailing envelope 26, and the envelope 26, and the envelope is sealed. The envelope 26 may contain an open or glassine window through which mailing address information imprinted on document 18, including barcode and sort level information, is displayed. Alternatively, address information, barcode and sort level data may be imprinted directly on the envelope 26. The present invention contemplates that address information of the recipient of the envelope 26 be visible on a face of the envelope, as well as postal value indicia which can be pre-printed on each envelope 26 based upon pre-determined estimated postage amounts for the type and weight of mailing, and the discount desired to be obtained, and supported by the mailer.

Detail Description Paragraph - DETX (8): [0029] After traversing path 34, each mail piece 28 is conveyed to traying conveyor section 16 of inserter 10, where the mail

pieces are placed in tray 33. While not shown in the present drawings, it is contemplated that mail pieces 28 will be automatically placed in tray 33 in a predetermined sequence, and a label attached to the tray to provide information as to the tray's contents, destination and/or validation status.